

REMARKS

Applicant would like to thank the Examiner for the careful consideration given the present application. The application has been carefully reviewed in light of the Office action, and amended as necessary to more clearly and particularly describe the subject matter which applicant regards as the invention.

It should be noted that, in the present After Final amendment, the claims as amended are presented herewith to overcome the rejections set forth in the last Office action and thereby place the application in condition for allowance. The claims as amended do not include any new matter, nor do they raise new issues requiring further consideration and/or search. The present amendment does not present additional claims without canceling any finally rejected claims, and so the present amendment materially reduces the issues to place the application in better condition for appeal. Favorable consideration is respectfully requested.

THE AMENDED CLAIMS

Claims 1, 3, 5, 13, 14 and 16 are presented for examination. Claim 1 has been amended to include the features of claim 4 which were indicated as containing allowable subject matter. It is noted that claim 1 has been slightly reworded for purposes of clarification, and to thereby correct the inference noted by the Examiner at paragraph 3 of the Office Action. In this regard, reference is made to page 9, line 20 to page 10, line 21 of the specification. Claim 5 has been amended to include the features of claim 8, which were indicated as containing allowable subject matter.

Accordingly, claims 1 and 5 are in a condition for allowance.

CLAIM OBJECTIONS

Claims 11 and 14-17 had been objected to under 37 CFR 1.75(c) as being of improper dependent form. In accordance with the Examiner's instructions, as stated in MPEP 608.01(n), features of claim 14 have been incorporated into independent claim 13, and features of claim 16 have been incorporated into independent claim 3.

The preambles of claims 3 and 13 now respectively recite "a liquid chromatograph apparatus" each including an automated sampler as previously recited.

It should be noted that the amendments to these claims is proper as stated in Rule 75 and MPEP 602.01(n). Also, amended claims 3 and 13 do not recite any subject matter not previously considered by the Examiner. Entry and consideration of these amendments is therefore respectfully requested.

THE REJECTIONS UNDER 35 U.S.C. § 102

Claims 1, 5, 11 and 13-15 had been rejected under Section 102(b) as being anticipated by El-Hage et al. (U.S. Pat. No. 5,843,378). Claims 1, 5, 11 and 13-15 had also been rejected under Section 102(b) as being anticipated by Hoskins et al. (U.S. Pat. No. 3,883,305). Claims 1, 5, 11 and 13-15 had also been rejected under Section 102(e) as being anticipated by Li et al. (U.S. Pat. No. 6,365,024). These rejections are respectfully traversed, particularly as applied to the claims as presently amended.

Applicant thanks the Examiner for the indication of allowable subject matter in claims 4 and 8. In order to advance prosecution, the subject matter of these claims has been incorporated into the associated independent claims 1 and 5. It is therefore respectfully submitted that independent claims 1 and 5 overcome the rejections in view of El-Hage et al., Hoskins et al., and Li et al. Claims 11 and 15 have been cancelled. Accordingly, the foregoing rejections will be addressed as they relate to claims 13 and 14.

Claim 13 has been amended to include limitations from claim 14 and 15. In this way, claim 13 is now directed to a liquid chromatograph apparatus having an automatic sampler including a plurality of sample vessels, and a needle for collecting liquid samples sequentially from the sample vessels. The liquid chromatograph apparatus further comprises a liquid analysis apparatus for receiving the liquid samples collected by the needle. As recited, the needle contains a non-noble base metal and has an outer surface coated with a coating material that has a chemical activity lower than a chemical activity of the base metal of the needle. The coating material is a noble metal including platinum, a platinum group metal, or gold.

It is respectfully submitted that the prior art fails to show a liquid chromatograph having the particular combination of features recited in claim 13. Indeed, El-Hage et al. discloses a type of chemical analyzer, Hoskins et al. discloses a colorimeter, and Li et al., discloses an automated electrophoretic system. However these references clearly fail to disclose a liquid chromatograph. It is therefore respectfully submitted that these references do not show every detail of the present invention as recited in claim 13. Therefore, these references do not satisfy the criteria for anticipation as required by Section 102. Reconsideration and

withdrawal of these rejections is therefore respectfully requested.

Claims 3 and 16-17 had been rejected under Section 102(e) as being anticipated by King et al. (U.S. Pat. No. 6,132,582). Claims 3 and 16-17 had been rejected under Section 102(e) as being anticipated by Safir et al. (U.S. Pat. No. 6,132,582). This rejection is respectfully traversed, particularly as applied to the claims as presently amended.

Claim 17 has been cancelled. Accordingly, the foregoing rejections will be addressed as they relate to claims 3 and 16.

Claim 3 has been amended to include limitations from claims 7 and 16. In this way, claim 3 is now directed to a liquid chromatograph apparatus comprising an automatic sampler including a plurality of sample vessels and a needle for collecting liquid samples sequentially from the sample vessels. The liquid chromatograph apparatus also includes a liquid analysis apparatus for receiving the liquid samples collected by the needle. As recited, the needle contains a non-noble base metal and has an outer surface coated with a coating material that has a chemical activity lower than a chemical activity of the base metal of the needle, the coating material includes a synthetic resin coating including polyetheretherketone that is coated on said needle.

It is respectfully submitted that the prior art fails to show an instrument having the particular combination of features recited in claim 3. King et al. discloses a sample handling system for a multi-channel capillary electrophoresis device. However, King et al. clearly fails to disclose an automated sampler including a needle coated with polyetheretherketone, as is required by claim 3. Safir et al. discloses a method of injecting polymer samples into a liquid chromatography

system. However, Safir et al. also clearly fails to disclose a liquid chromatography apparatus having an automated sampler including a needle coated with polyetheretherketone, as is required by claim 3. It is therefore respectfully submitted that these references do not show every detail of the present invention as recited in claim 3. Therefore, these references do not satisfy the criteria for anticipation as required by Section 102. Reconsideration and withdrawal of these rejections is therefore respectfully requested.

THE REJECTION UNDER 35 U.S.C. § 103

A further rejection of claim 7 had been tendered under Section 103 as follows:

Claim 7 had been rejected under Section 103(a) as being unpatentable over et al. as applied to claim 5 above, and further in view of Sohrab (U.S. Pat. No. 6,793,632).

El-Hage et al., Hoskins et al., or Li et al. specify that the resin coating is polyesteretherketone (PEEK).

The rejection went on in detail to discuss the disclosure of Sohrab and to propose how it would be obvious to modify El-Hage et al., Hoskins et al., or Li et al. by coating with a PEEK material.

Applicant's below-indicated representative telephoned the Examiner, Mr. Gordon, and, based upon this discussion, it is presently understood from the PTO that claim 7 had been intended to be rejected as unpatentable over King et al. and Safir et al., both in view of Sohrab. Nonetheless, these rejections are respectfully traversed, particularly as applied to the claims as presently amended.

Claim 7 had required that the synthetic coating on the needle includes polyesteresterketone (PEEK). As noted above, this limitation has presently been incorporated into independent claim 3, so as to distinguish over King et al. and Safir et al. Nonetheless, even if Sohrab were to be combined with either of these references, as applied against claim 3, it would still fail to satisfy the requirements of the resulting claim.

Sohrab discloses a micro-needle for skin penetration and taking a biological sample from a patient. Sohrab does include an incidental disclosure of a PEEK coating as a biocompatible material. However, the micro-needle of Sohrab is of a very different type and purpose than a needle used with an automatic sampler, as is the subject of the present claim 3. There is nothing in this reference that would suggest the desirability of a combination of Sohrab with an electrophoresis device such as King et al. or a liquid chromatography system such as Safir et al. Indeed, such would destroy the function of Sohrab, since such a biological needle for skin penetration is not compatible with the types of needles used with automatic samplers. As such, Sohrab clearly teaches away from the presently claimed invention.

In view of the above, it is respectfully submitted that amended claim 3 recites limitations not shown in the prior art. Favorable consideration is respectfully requested.

In light of the foregoing, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned to expedite prosecution

of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 18-0160, our Order No. NGB-12930.

Respectfully submitted,

RANKIN, HILL, PORTER & CLARK LLP

By



Jay P. Ryan
Agent for Applicant
Registration No. 37,064

4080 Erie Street
Willoughby, Ohio 44094
(216) 566-9700